

## Sodium Potassium ATPase Conjugated Antibody

Catalog No: #C48913



Package Size: #C48913-AF350 100ul #C48913-AF405 100ul #C48913-AF488 100ul  
 #C48913-AF555 100ul #C48913-AF594 100ul #C48913-AF647 100ul  
 #C48913-AF680 100ul #C48913-AF750 100ul #C48913-Biotin 100ul

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## Description

Product Name	Sodium Potassium ATPase Conjugated Antibody
Host Species	Rabbit
Clonality	Monoclonal
Species Reactivity	Hu, Ms, Rt
Immunogen Description	Synthetic peptide within Human ATP1A1 aa 39-83 / 1023.
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	ATPase Na <sup>+</sup> /K <sup>+</sup> transporting alpha antibody adenosinetriphosphatase antibody AT1A1_HUMAN antibody ATP1A1 antibody ATP1A4 antibody ATP1AL2 antibody ATP1B antibody ATP1B1 antibody ATPase Na <sup>+</sup> /K <sup>+</sup> transporting alpha 1 polypeptide antibody ATPase Na <sup>+</sup> /K <sup>+</sup> transporting alpha 4 polypeptide antibody ATPase Na <sup>+</sup> /K <sup>+</sup> transporting beta 1 polypeptide antibody ATPase, Na <sup>+</sup> /K <sup>+</sup> transporting, alpha polypeptide-like 2 antibody ATPase, Na <sup>+</sup> /K <sup>+</sup> transporting, beta 1 polypeptide antibody Beta 1-subunit of Na <sup>(+)</sup> ,K <sup>(+)</sup> -ATPase antibody Na <sup>(+)</sup> /K <sup>(+)</sup> ATPase alpha-1 subunit antibody Na <sup>(+)</sup> /K <sup>(+)</sup> ATPase alpha-4 subunit antibody Na <sup>+</sup> , K <sup>+</sup> ATPase alpha subunit antibody Na <sup>+</sup> /K <sup>+</sup> ATPase 1 antibody Na <sup>+</sup> /K <sup>+</sup> ATPase 4 antibody Na <sup>+</sup> /K <sup>+</sup> ATPase, alpha-D polypeptide antibody Na, K-ATPase beta-1 polypeptide antibody Na, K-ATPase, alpha-A catalytic polypeptide antibody Na,K-ATPase catalytic subunit alpha-A protein antibody Na,K-ATPase subunit alpha-C antibody polypeptide-like 2 antibody Sodium pump 1 antibody sodium pump 4 antibody Sodium pump subunit alpha-1 antibody sodium pump subunit alpha-4 antibody sodium pump subunit beta-1 antibody sodium-potassium ATPase catalytic subunit alpha-1 antibody sodium-potassium ATPase catalytic subunit alpha-4 antibody sodium-potassium ATPase subunit beta 1 (non-catalytic) antibody sodium-potassium ATPase, alpha 4 polypeptide antibody sodium-potassium-ATPase, alpha 1 polypeptide antibody Sodium/potassium transporting ATPase alpha 1 chain antibody Sodium/potassium transporting ATPase subunit beta 1 antibody sodium/potassium-dependent ATPase beta-1 subunit antibody sodium/potassium-transporting ATPase alpha-4 chain antibody sodium/potassium-transporting ATPase beta-1 chain antibody Sodium/potassium-transporting ATPase subunit alpha-1 antibody sodium/potassium-transporting ATPase subunit alpha-4 antibody
Accession No.	Swiss-Prot#:P05023
Uniprot	P05023
GeneID	476;
Excitation Emission	AF350: 346nm/442nm AF405: 401nm/421nm AF488: 493nm/519nm AF555: 555nm/565nm AF594: 591nm/614nm AF647: 651nm/667nm AF680: 679nm/702nm

AF750: 749nm/775nm

Calculated MW	100 kDa
Formulation	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Storage	Store at 4°C in dark for 6 months

## Application Details

### Suggested Dilution:

AF350 conjugated: most applications: 1: 50 - 1: 250

AF405 conjugated: most applications: 1: 50 - 1: 250

AF488 conjugated: most applications: 1: 50 - 1: 250

AF555 conjugated: most applications: 1: 50 - 1: 250

AF594 conjugated: most applications: 1: 50 - 1: 250

AF647 conjugated: most applications: 1: 50 - 1: 250

AF680 conjugated: most applications: 1: 50 - 1: 250

AF750 conjugated: most applications: 1: 50 - 1: 250

Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1: 50 - 1: 1,000

## Background

The ubiquitously expressed sodium/potassium-ATPase (Na<sup>+</sup>/K<sup>+</sup>-ATPase) exists as an oligomeric plasma membrane complex that couples the hydrolysis of one molecule of ATP to the importation of three Na<sup>+</sup> ions and two K<sup>+</sup> ions against their respective electrochemical gradients. As a member of the P-type family of ion motives, Na<sup>+</sup>/K<sup>+</sup>-ATPase plays a critical role in maintaining cellular volume, resting membrane potential and Na<sup>+</sup>-coupled solute transport. Multiple isoforms of three subunits,  $\alpha$ ,  $\beta$  and  $\gamma$ , comprise the Na<sup>+</sup>/K<sup>+</sup>-ATPase oligomer. The  $\alpha$  subunit contains the binding sites for ATP and the cations; the glycosylated  $\beta$  subunit ensures correct folding and membrane insertion of the  $\alpha$  subunits. The small  $\gamma$  subunit co-localizes with the  $\alpha$  subunit in nephron segments, where it increases the affinity of Na<sup>+</sup>/K<sup>+</sup>-ATPase for ATP. The  $\beta$  subunit, but not the  $\gamma$  subunit, is essential for normal activity of Na<sup>+</sup>/K<sup>+</sup>-ATPase.

Note: This product is for in vitro research use only